



■ Article ■

A Study of the Development and Validation of the Multicultural Empathy Scale for Pre-Service Early Childhood Teacher

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Abstract

The purpose of this study is to develop and validate the Multicultural Empathy Scale for pre-service early childhood teachers. To this end, a study was conducted involving 227 university students majoring in early childhood education in Gyeonggi-do, South Korea. Preliminary questions were composed by reviewing existing measures for empathy and multicultural empathy through the analysis of previous studies. As a result of the exploratory factor analysis, a multicultural empathy scale of 16 items with 4 factors was developed. The sub-factors of the multicultural empathy scale are multicultural emotional expression, multicultural attitude, embracing multicultural differences, and multicultural empathy awareness. As a result of analysis of the internal correlation of the scale, the sub-factors were closely related to each other, and the criterion validity with the basic empathy scale was also found to be appropriate. The reliability was found to be high at .91. Through this, it was confirmed that the multicultural empathy scale developed in this study is a reliable and valid scale. Suggestions for follow-up studies and the significance of this study are discussed.

■ **Keywords** : Multicultural Empathy, Reliability, Validity, Pre-service early childhood teacher

Introduction

A community or society has expectations and beliefs that all members understand and abide by in fulfilling their responsibilities and roles. Based on such beliefs, social relationships are formed, and mutual respect

and cooperation are achieved. Empathy exists at the foundation of such a community. Empathy is understanding and communicating the emotions and psychological states of others as if they were one's own (Hong, 2021). Modern society is being transformed into a society of empathy where the spirit of empathy or empathy sensitivity is a decisive factor in the construction and operation of society (Yoo & Nam, 2018). Therefore, empathy is an important factor in society as a whole, and it is especially important in the field of early childhood education, which requires care and education.

Recently, in the field of early childhood education, the number of multicultural children using daycare centers and kindergartens has been increasing rapidly due to the expansion of multicultural families (Chae, 2018a; Lim, 2020). National education statistic show that, the number of multicultural students in Korea has tripled compared to 10 years ago, and among them, elementary school students account for the largest portion (Ministry of Education, 2021). As the number of multicultural children is rapidly increasing, the ability to effectively and appropriately communicate with them is required in the educational field. However, in the field of education, teachers feel difficulties in implementing education for multicultural children (Ha, 2021). This may be due to the lack of understanding and empathy for the individual characteristics and environment of multicultural children. In order to fulfill the educational practice of multicultural children, it is necessary to first understand multicultural children. In other words, it is necessary to understand the language, culture, thoughts, and emotions of multicultural children and to make efforts to continuously empathize with them. Multicultural children have different cultures and languages, and their family backgrounds are also different from those of infants in the general. Therefore, education should be implemented based on an understanding of these learner characteristics.

Examination of research on multicultural children shows that there are numerous studies related to multicultural education, early childhood teachers, and programs (Chae, 2021), probably because the person who conducts multicultural education is the teacher. Consideration on the main

themes of research on teachers reveals that there are many different teachers' perceptions and attitudes toward multiculturalism. Representationally, multicultural attitudes, multicultural receptivity, and multicultural efficacy occupy a high proportion of such studies (Choi, 2020; Ha, 2021; Lee & Park, 2020; Lim, 2020). Previous studies that analyzed research trends related to multicultural children also reported that there are many cognitive-related research topics (Lee & Park, 2020). These teachers' perceptions and attitudes have a significant impact on the growth and development of children as well as their actual education. Therefore, teachers must have a positive attitude and awareness along with expertise in multicultural education.

Previous studies reported that empathy plays an important role in these multicultural perceptions and attitudes. People with high cultural empathy are said to be more receptive to multiculturalism (Son, 2020), and those with high multicultural sensitivity are also found to have high self-esteem and self-control ability (Chen & Starosta, 2000). The empathy ability of pre-school teachers has been shown to have a positive effect on multicultural acceptance (Kwon, 2020), and has a positive effect on multicultural attitudes and cultural competency (Kim, 2020; Song & Kim, 2020). As such, empathy acts as an important variable in multicultural education. The concept of empathy is sometimes newly defined according to the changes of the times, and it is necessary to expand the study of empathy to reflect the recent rapid change in multicultural education for young children. However, there is no multicultural empathy scale that reflects Korea's multicultural and cultural elements. Existing studies have used empathy scales developed in foreign countries with adaptations. In this case, there is a limit to measuring the degree of multicultural empathy because the scale is not specific to the cultural empathy situation or the target of multicultural education. Therefore, it is necessary to develop a new scale that can measure multicultural empathy in the early childhood education context in South Korea.

To this end, this study aims to develop and validate a scale that can measure multicultural empathy for pre-primary early childhood teach-

er, which will make it possible to objectively measure the degree of multicultural empathy of pre-school teachers so as to promote the development of multicultural teacher education programs based on the measurement results. The research questions for this study are as follows.

First, what is the validity and reliability of the Multicultural Empathy Scale?

Second, what is the factor structure of the Multicultural Empathy Scale?

Background

Empathy Scale

In general, empathy refers to an attitude of understanding the emotions and situations of others and responding adaptively (Park, 2012). Since empathy is an emotional response from the point of view of others rather than oneself, it is considered the basis of altruistic behavior (Jang & Kim, 2014). There have been continuous efforts to develop a scale to measure empathy. In the early days, empathy was viewed and measured as a single factor, but recently a multi-factor structure has been proposed. Early studies that suggested the single-factor structure of the empathy scale posited such factors as cognitive empathy (Hogan, 1969) and emotional empathy (Mehrabian & Epstein, 1972). In recent years, single-factor measures have been developed. Konrath et al. (2018) developed a tool to measure empathy characteristics with a single item. Yeo (2012) also validated the single-factor scale, which is an 11-item empathy scale for nursing students.

Studies suggesting the multi-factor structure of the empathy scale are also being continuously developed. Lawrence et al. (2004) developed an empathy index scale and presented a three-factor structure of empathy. Batchelder et al. (2017) presented a five-factor structure of cognitive ability, cognitive drive, affective ability, affective drive, and affective reactivity for developing an empathy scale. Oh and Hwang (2020) developed the Early Childhood Teacher Empathy Scale and presented five

factors as sub-components: cognitive empathy (adults, infants), emotional empathy (adults, infants), and expressive empathy. Lee (2021) developed a basic empathy scale for preservice teachers, and suggested cognitive empathy, emotional separation, and emotional transfer as sub-elements. Cognitive empathy means being able to understand emotions and interpret their meanings. Emotional separation is the separation and protection of oneself from excessive emotional states. Emotional transfer involves automatic empathy.

Multicultural Empathy Scale

Several scales have been used to measure empathy in multicultural situations, and tools under various names have been measuring multicultural empathy. In previous studies, cultural empathy (Ivey, Ivey, & Simek-Downing, 1987; Ridley & Lingle, 1996), empathic multicultural awareness (Junn, Morton, & Yee, 1995), and cultural therapeutic empathy (Parson, 1993) were widely used. A representative form is ethnocultural empathy, which is a concept that includes the understanding and convergence of other people's cultures beyond general empathy (Park & Eo, 2019; Ridley & Lingle, 1996). Ridley and Lingle (1996) viewed ethnocultural empathy as a learned ability, and presented a complex model with a multi-faceted structure. The model includes three sub-processes: cognitive, affective, and communicative. Cognitive empathy refers to the ability to understand the thoughts and feelings of multicultural students. Affective empathy refers to the ability to feel, pay attention to, and express the emotional state of multicultural students. Communication empathy refers to expressing thoughts and feelings about multiculturalism, whether through language or actions. Researchers have considered this concept of ethnocultural empathy as capable of development over time, making it possible to recognize and explain individual differences by measuring multicultural empathy (Duan & Hill, 1996; Quintana et al., 1999).

Based on previous studies, Wang et al. (2003) suggested three fac-

tors, intellectual empathy, empathic emotion, and communicative empathy, as conceptual components of multicultural empathy, and developed a scale consisting of a four-factor structure in consideration of the conceptual classification and internal consistency index during the tool development process. The sub-factors comprise empathic feelings and expressions, empathic perspective acceptance, cultural difference acceptance, and empathic perception. Rasoal et al. (2011) developed and validated the Swedish version of the ethnocultural empathy scale, and presented four sub-components of the scale: cultural difference acceptance, communicative cultural empathy, cultural empathy perception, and cognitive cultural empathy. He analyzed the relationship between cultural empathy and general empathy, and confirmed that these two factors showed a high correlation with each other. Warren (2015) developed a tool to measure empathy in the context of multicultural education that shows a structure with two factors: teacher personality and competence, and personal reflection. Finck et al. (2021) suggested a five-factor structure while validating the Spanish version of the Ethnocultural Empathy Scale. Sub-factors include cultural openness, racism conscience, empathy, anger, and anxiety. Items originally related to empathy, cognition, and emotion were loaded onto the single factor of empathy in this study. As such, multicultural empathy can be structured differently depending on cultural differences or situational factors. In Korea, Kim (2014)'s tool has been used with adaptation and modification for the Korean situation by Wang et al. (2003)'s Ethnocultural Empathy Scale. This tool consists of a two-factor structure: cognitive empathy and emotional empathy.

Methods

Participants

This study was conducted with 227 college students majoring in early childhood education in Gyeonggi-do, South Korea. By the general background of the study subjects, there were 13 males (5.7%) and 214 females (94.3%), and the average age was 21.9 years. By grade, there

were 48 (21.1%) first-year students, 56 (24.7%) second-year students, 82 (36.1%) third-year students, and 41 (18.1%) fourth-year students. 193 subjects (85%) had experience taking courses related to multiculturalism, while 34 subjects (15.0%) did not.

Instrument Development

This study aimed to develop and validate a multicultural empathy scale for pre-service early childhood teachers. To this end, the definition of the concept and its constituent factors were explored through the analysis of previous studies. First, the operational definition of multicultural empathy was established focusing on the conceptual definition of ethno-cultural empathy by Ridley and Lingle (1996). In this study, multicultural empathy was defined as “accepting cultural differences and adopting an empathic attitude based on understanding and recognition of various cultures.” A preliminary set of 45 items were developed with reference to the items of the cultural empathy scale of Wang et al. (2003) and Rasool et al. (2011). To verify the validity of the content, two experts who have experience teaching multicultural education courses at universities—one holder of a PhD in education and one in early childhood education—reviewed it for suitability. These are experts. As a result of the content validity check, 10 items including ambiguous or complex items and items containing duplicate meanings were deleted, and the remaining 35 items were selected.

Next, the reliability and validity of the multicultural empathy scale were confirmed through a preliminary survey. An exploratory factor analysis was performed on the final 35 items verified for content validity. As a result, the total explanatory variance was 77.5%, and there were a total of 8 factors with an eigenvalue of 1 or higher. For the simplicity and validity of the scale, the contents of the items for each factor were examined. As a result, 19 items such as items loaded on one or more factors and items loaded on other factors without loading on the theoretically constructed factors were deleted, from which a final 16 items were

selected. This study was conducted with 227 pre-primary early childhood teachers. As a result of the exploratory factor analysis, the total explanatory variance was 60.6%, indicating a four-factor structure, while the reliability analysis yielded an overall reliability of .91. Through this process, the multicultural empathy scale was finally confirmed as a 16-item 4-factor structure. The sub-factors are multicultural emotional expression, multicultural attitude, embracing multicultural differences, and multicultural empathy awareness. Examples of items for each factor are presented in <Table 1> below.

Table 1
Example Items

Factor	N	Item
Multicultural emotional expression	5	I get angry when a multicultural child is treated unfairly
Multicultural attitude	4	It can be understood from the point of view of multicultural children
Embracing multicultural differences	4	We know that multicultural children are not accustomed to Korean
Multicultural empathy awareness	3	I am aware of social discrimination against multiculturalism.

Data Analysis

In this study, descriptive statistical analysis, frequency analysis, reliability analysis, factor analysis, and correlation analysis were performed to develop and validate the multicultural empathy scale. For reliability analysis, Cronbach's α coefficient was used. For factor analysis, exploratory factor analysis was used. As the analysis methods, principal component analysis (PCA) and varimax rotation were used. Principal component analysis was used to examine the underlying components of multicultural empathy within the scale in a sample. We tried to extract a few factors that explained as much of the variance of the variables as possible, with an emphasis on checking the clustering and structure of variables. Factor extraction was based on an eigenvalue of 1 or more (Kaiser, 1960) and a scree plot. To confirm the internal factor structure

of the scale, confirmatory factor analysis was performed, and the maximum likelihood method was used as the parameter estimation method. For the fit index, χ^2 , the absolute fit index, CFI, TLI, and the simple fit index RMSEA were used. Correlation analysis was performed to confirm discriminant validity, and correlation analysis was performed with the Basic Empathy Scale (Y. Lee, 2021) to confirm criterion validity. The analysis was conducted with SPSS 22.0 and Jamovi version 2.3.13.

Results

Validation

Before exploratory factor analysis, the KMO measure and Bartlett's test of sphericity were performed to confirm the validity of the factor structure, yielding a KMO measure of 0.835, and the significance of the Bartlett's test of sphericity was $p < .001$, confirming that it was suitable for factor analysis. As a result of the exploratory factor analysis, four factors with an eigenvalue of 1 or higher were extracted, and the total explanatory variance of these factors was found to be 60.6%. The Multicultural Empathy Scale was confirmed with a total of 16 items and a four-factor structure, and the sub-factors were named multicultural emotional expression, multicultural attitude, embracing multicultural differences, and multicultural empathy awareness. The first factor is the expression of multicultural emotions, consisting of items related to emotional response and empathic expression to multiculturalism. This factor is related to the expression of empathic emotions related to discrimination or prejudice against multiculturalism. The second factor was named multicultural attitude. This factor consists of items containing attitudes for understanding the emotions, situations, and positions of multicultural children. The third factor was named embracing multicultural differences and is composed of questions to understand and accept the characteristics, values, customs, and traditions of various cultures. The fourth factor was named multicultural empathy awareness and consists of items focusing on knowledge and awareness of multiculturalism, discrimination and

Table 2

Factor loadings (N = 227)

N	Item	Factor 1	Factor 2	Factor 3	Factor 4
1	I say it makes me uncomfortable when people make discriminatory comments about multiculturalism	.787			
2	It hurts me to see discrimination against multicultural children.	.739			
3	I get angry when a multicultural child is treated unfairly.	.702			
4	I talk about the cultural background of multicultural children	.630			
5	I am concerned about discrimination against multicultural children	.600			
6	I can understand the emotions of multicultural children		.819		
7	I can think from the perspective of a multicultural child		.700		
8	I can understand what a multicultural toddler feels like in Korea		.613		
9	I am not uncomfortable with multicultural infants		.603		
10	We know that multicultural children are not accustomed to Korean			.723	
11	I know that communication with multicultural children may not be smooth			.658	
12	Respect the culture and traditions of multicultural children			.642	
13	I am aware of the traditions and customs of multicultural children			.522	
14	I am aware of society's discrimination against multiculturalism				.815
15	Broadcasting media show prejudice against multiculturalism				.599
16	There are times when we discriminate against multiculturalism in our society.				.586
	Cumulative %	19.1	33.9	47.7	60.6
	Eigenvalue	6.3	1.0	1.0	1.0

prejudice. The final factor structure and factor matrix of the Multicultural Empathy Scale are presented in Table 2 below.

Reliability

The mean, standard deviation, and internal agreement of each item of the multicultural empathy scale were investigated. The Multicultural Empathy Scale consists of a total of 16 items, and each item is scored on a 5-point Likert scale. The mean values of the item scores were in the range of 3.90 to 4.64. Regarding the assumption of a normal distribution, skewness was in the range of -1.283 to $.0$ and kurtosis was in the range of -0.990 to 0.817 , which satisfy the criteria of skewness < 2 and kurtosis < 4 . The overall reliability of the scale was $.91$, and the reliability of the sub-factors were $.884$ for multicultural emotional expression, $.849$ for multicultural attitude, $.798$ for embracing multicultural differences, and $.786$ for multicultural empathy awareness.

Factor Structure

Model Comparison

To confirm the factor structure of the multicultural empathy scale, confirmatory factor analysis was performed. In this study, two competition models were established based on previous studies (Hogan, 1969; Wang et al., 2003; Yeo, 2012), and the resulting single-dimensional model and multi-dimensional model were compared and analyzed. Model 1 is a single factor model, in which each item is explained by a single common factor called multicultural empathy. Since there is no scale to measure multicultural empathy in South Korea, a model was established based on previous studies that measured empathy as a single factor. Model 2 is a multidimensional structure in which multiple factors are extracted while items are correlated with each factor. Wang et al. (2003) explained multicultural empathy as having a multidimensional structure composed of four sub-factors. In the exploratory factor analysis of this study, four sub-factors were extracted, and the model was set up with a multidimensional structure. The results of comparing and analyzing the fit of the two models are presented in Table 4 below. Absolute fit indices χ^2 (CMIN), Normal χ^2 (CMIN/ DF), TLI, CFI, and RMSEA were used

for fit indices.

As a result of the fitness test, for Model 1 (single-dimensional model), the χ^2 value was 891.0 ($df = 104$, $p < .001$), the standard χ^2 value was 8.56, and the TLI was .567, CFI .625, and RMSEA .18. For Model 2 (multidimensional model), the χ^2 value was 215.0 ($df = 84$, $p < .001$), the standard χ^2 value was 2.55, TLI .911, CFI .937, and RMSEA .08. The results showed that model 1 did not have very good fit to the data, whereas Model 2 showed a very good fit to the data (Hoyle & Panter, 1995; Hu & Bentler, 1999). Accordingly, it can be seen that Model 2 (the multidimensional model) is more consistent with the data, and multicultural empathy is better explained as a multidimensional structure rather than as having a single dimension. The results of the factor analysis are presented in Table 3 below.

Table 3

Model Fit (N = 227)

model	χ^2	df	χ^2_d	TLI	CFI	RMSEA
model 1	891.0***	104	8.567	.567	.625	.18
model 2	215.0***	84	2.555	.911	.937	.08

Note. TLI = Tucker-Lewis index; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error of Approximation. *** $p < .001$

Correlations

To check the discriminant validity of the Multicultural Empathy Scale, correlations between the sub-factors of the scale were investigated, confirming that the sub-factors of the Multicultural Empathy Scale had a close internal correlation. The internal correlation coefficient of the scale was .443 to .587. Among the correlations with the overall scale, the factor showing the highest correlation was multicultural emotion expression, which showed a correlation of .873, and the factor showing the lowest correlation was multicultural empathy awareness with a correlation of .693.

In order to confirm the criterion validity of the multicultural empathy

scale developed in this study, a correlation analysis with the basic empathy scale (Lee, 2021) was performed that confirmed that the multicultural empathy scale showed a close correlation with the basic empathy scale above medium. The results of the correlation analysis are presented in Table 4 below.

Table 4
Correlations (N = 227)

Factor	1	2	3	4	Total	Basic empathy scale
1	1					
2	.587**	1				
3	.536**	.456**	1			
4	.473**	.443**	.447**	1		
Total	.873**	.806**	.752**	.693**	1	583**

Note. 1 = multicultural emotional expression, 2 = multicultural attitude, 3 = embracing multicultural differences, 4 = multicultural empathy awareness, total = Multicultural Empathy Scale. *** $p < .001$, ** $p < .01$

Conclusion

The purpose of this study is to develop and validate a scale that can measure multicultural empathy in the multicultural education scene for pre-service early childhood teachers in order to contribute to nurturing teachers with the necessary qualities and competencies as democratic citizens of a future society. To this end, the constituent factors were established based on the cultural empathy model presented in previous studies and the factor structure was confirmed. As a result, the Multicultural Empathy Scale consisted of 16 questions under 4 factors: multicultural emotional expression (5 questions), multicultural attitude (4 questions), embracing multicultural differences (4 questions), and multicultural empathy awareness (3 questions). The sub-factors of the scale showed distinct characteristics while closely related to each other, confirming convergence and discriminatory validity. This is in line with previous studies (Finck et al., 2021; Rasoal et al., 2011; Wang et al., 2003; Warren, 2015) that suggested the multi-factor structure of the Ethnocultural Empathy Scale.

Although this study showed different results from the three-factor structure of Ridley and Lingle (1996), who presented the initial model of multicultural empathy, each topic of the sub-factor includes all the contents of the three-factor model of cognition, emotion, and communication. Therefore, it can be seen as supporting the initial model of multicultural empathy.

Of the correlation values for each sub-factor of the Multicultural Empathy Scale, the expression of multicultural emotions showed the highest correlation with the overall scale. This means that emotional expression explains a large part of the construct of multicultural empathy, suggesting the need for systematic education to improve the appropriate understanding, expression, and controllability of emotions for multicultural society and multicultural children.

The significance of this study is as follows. First, in this study, beyond the general construct of empathy for culture, the concept of construct for multicultural empathy, reflecting multicultural children and multicultural situations, was established. In other words, to specifically measure empathy in the multicultural domain, a constructing concept was established and sub-factors were explored. It is meaningful in that it established a constructive concept and explored sub-factors in a situation where clear conceptual discussion on multicultural empathy is lacking. In addition, in the absence of a tool to measure multicultural empathy in South Korea, a tool was developed to objectively measure and evaluate the multicultural empathy of pre-primary early childhood teachers. The scale developed in this study can be applied in the multicultural early childhood education context, as well as to teacher training and curriculum development at universities that train pre-school teachers.

Second, in a situation where the scope of research related to multiculturalism is not wide, the scope of research related to education for multicultural children has been expanded. An important value in the future society is global communication and coexistence. Pre-service teachers who must practice multicultural early childhood education should also prepare for such a way of coexistence and communication. The future

direction of education for preschool teachers should be directed toward improving such multicultural empathy and nurturing teachers with global communication skills. In that respect, it can be seen that the multicultural empathy scale of this study is a useful tool that appropriately reflects the changes of the times and the needs of the early childhood education field. Lack of empathy lowers job satisfaction and the quality of education, which negatively affects relationships with young children (Lee & Han, 2020). Previous studies have reported that empathy has a positive effect on multicultural acceptability (Kim & Yu, 2019), and that the ability of early childhood teachers to empathize with culture also affects attitudes to multicultural education (Song & Kim, 2020). Our society has already entered a multicultural society, and it is urgent to prepare for multicultural early childhood education and train teachers. However, there are aspects in which an inclusive attitude and empathy have not yet been firmly established in the perception of a multicultural society (Yang, 2020). Teachers who teach multicultural children are required to understand and empathize with multiculturalism at the same time. Such empathy is difficult to acquire on its own, but can be acquired through continuous education. Therefore, it is necessary to develop a curriculum that can measure and promote multicultural empathy using objective scales. As a result, this multicultural empathy will contribute to the successful practice of multicultural early childhood education by understanding and empathizing with the minds and emotions of multicultural children in the early childhood education field.

Third, the multicultural empathy scale developed in this study does not target a specific culture, so it can be used to communicate with children from various cultures. In addition, this scale can be used not only in classes for pre-primary teachers, but also in multicultural classes and team activities for general college students. Based on the results of this study, suggestions for follow-up studies are as follows. First of all, this study developed a scale targeting pre-primary early childhood teachers in some regions, so there is a limit to the generalizability of the research results. In subsequent studies, it will be necessary to contribute to the

generalization of research results by including a wider area of research subjects. In addition, based on the construct of multicultural empathy, the level of multicultural empathy of pre-primary early childhood teachers should be measured, and upon this basis teacher education programs should be developed. These studies will thus contribute to the expansion and successful implementation of multicultural education for children.

References

- Batchelder, L., Brosnan, M., & Ashwin, C. (2017). The development and validation of the empathy components questionnaire (ECQ). *PLoS ONE*, 12(1), 169–185.
- Chae, M. O. (2018). Subjective health status, mental health and Internet addiction tendency of adolescents from ordinary and multicultural families. *Digital Convergence Research*, 16(2), 383–393.
- Chae, Y. R. (2021). Analysis of research trends in multicultural education using text mining analysis. *Early Childhood Education Research*, 41(6), 333–350.
- Chen, G. M., & Starosta, W. J. (2000). The development and validation of the Intercultural Communication Sensitivity Scale. *Human Communication*, 3, 1–15.
- Choi, H. S. (2020). The effect of early childhood teachers' multicultural attitude and multicultural efficacy on the multicultural early childhood-teacher relationship: Focusing on the mediating effect. *Research on Learner-Centered Curriculum and Education*, 20(14), 677–698.
- Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of Counseling Psychology*, 43(3), 261–274.
- Finck, C., Gómez, Y., Castro, J. N., Mogollón, E. Y., Marcelo, N., & Hinz, A. (2021). Adaptation and validation of a Spanish instrument for assessing multicultural competencies and empathy. *International Journal of Intercultural Relations*, 83, 163–176.
- Ha, J. H. (2021). Exploring the direction of art education for the cultivation

- of multicultural sensitivity of pre-school teachers. *Children's Education Criticism*, 11(1), 5–26.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33(3), 307–316.
- Hong, S. Y. (2021). Analysis of domestic research trends on empathy research of nursing students. *Humanities and Social Sciences* 21, 11(5), 369–384.
- Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76–99). Thousand Oaks, CA: Sage publication.
- Ivey, A. E., Ivey, M. B., & Simek-Downing, L. (1987). *Counseling and psychotherapy: Integrating skills, theory, and practice*. New Jersey: Prentice-Hall, Inc.
- Jang, J. H., & Kim, S. H. (2014). The effect of empathy, attribution of responsibility, and anger on intention to altruistic punishment: Focusing on the 2013 Namyang Dairy Incident. *Korean Journal of Journalism*, 58(5), 97–122.
- Junn, E. N., Morton, K. R., & Yee, I. (1995). The “Gibberish” exercise: Facilitating empathetic multicultural awareness. *Journal of Instructional Psychology*, 22(4), 324–329.
- Kaiser, H. F. (1960). The applications of electronic computer to factor analysis. *Educational and Psychological Measurement*, 20, 141–151.
- Kim, H. J., & Yu, D. R. (2019). Study of Multicultural Acceptance among the Elderly: Self-esteem and Empathy. *The Journal of Multicultural Society*, 12(3), 37–71.
- Kim, J. Y. (2014). A Study on color-blind racial attitudes and cultural competence of service providers in multicultural settings: Focusing on moderating effects of multicultural training. *Korean Journal of Family Social Work*, 45, 5–34.
- Kim, K. H. (2020). The effect of multicultural awareness and cultural empathy on cultural competency of nursing students. *Journal of the Korean Society of Industrial-Academic Technology*, 21(8), 241–247.

- Konrath, S., Meier, B. P., & Bushman, B. J. (2018). Development and validation of the Single Item Trait Empathy Scale (SITES). *Journal of Research in Personality, 73*, 111–122.
- Kwon, Y. J. (2020). The effects of preservice early childhood teacher's human rights sensitivity and empathy on their multicultural acceptability. *Korean Journal of Early Childhood Education Research, 22*(3), 138-158.
- Lawrence, E. J., Shaw, P., Baker, D., Baron-Cohen, S., & David, A. S. (2004). Measuring empathy: Reliability and validity of the Empathy Quotient. *Psychological Medicine, 34*(5), 911–920.
- Lee, J. S., & Han, J. S. (2020). The mediating effect of communication skills on the relationship between empathy ability and job satisfaction of early childhood teachers. *Journal of Early Childhood Education, 24*(6), 175–194.
- Lee, S. J., & Park, Y. S. (2020). Analysis of research trends related to children from multicultural families: Focusing on domestic academic journals. *Humanities and Social Sciences 21, 11*(5), 2353–2367.
- Lee, Y. O. (2021). A study on the development and validity of the Basic Empathy Scale for preservice teachers. *Culture and Fusion, 43*, 137–154.
- Lim, M. H. (2020). The moderating effect of multicultural teaching competency on the relationship between early childhood teachers' multicultural sensitivity and multicultural teaching efficacy. *Comprehensive Education Research, 18*(2), 1–16.
- Ministry of Education. (2021). *2021 Educational Statistical Analysis Data Sheet*. Seoul: Ministry of Education.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40*(4), 525–543.
- Oh, H. J., & Hwang, H. I. (2020). A study on the development of the Early Childhood Teacher Empathy Scale. *Proceedings of the Korean Society for Early Childhood Education, 2020*, 133–136.
- Panter, A. T., & Hoyle, R. (1995). Writing about structural equation models. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 158–176). Thousand Oaks, CA: Sage

Publications.

- Park, M. (2012). Cognitive empathy and emotional empathy: Implications for psychopathology and psychological rehabilitation. *Rehabilitation Psychology Research*, 19(3), 387–405.
- Park, S. Y., & Eo, Y. S. (2019). The effect of cultural diversity attitude and cultural empathy on citizens' multicultural competence: Focusing on Gimhae citizens. *Fisheries and Maritime Education Research*, 31(1), 183–195.
- Parson, E. R. (1993). Ethnotherapeutic empathy (EthE)—Part II: Techniques in interpersonal cognition and vicarious experiencing across cultures. *Journal of Contemporary Psychotherapy*, 23(3), 171–182.
- Quintana, S. M., & Vera, E. M. (1999). Mexican American children's ethnic identity, understanding of ethnic prejudice, and parental ethnic socialization. *Hispanic Journal of Behavioral Sciences*, 21(4), 387–404.
- Rasoal, C., Jungert, T., Hau, S., & Andersson, G. (2011). Development of a Swedish version of the Scale of Ethnocultural Empathy. *Psychology*, 2(6), 568–573.
- Ridley, C. R., & Lingle, D. W. (1996). Cultural empathy in multicultural counseling: A multidimensional process model. In P. B. Pedersen, J. G. Draguns, W. J. Lonner, & J. E. Trimble (Eds.), *Counseling across cultures* (pp. 21–46). CA: Sage Publications.
- Son, Y. J. (2020). The Effect of the Ethnocultural Empathy on Global High School Students' Acceptive Attitudes toward Refugees. Doctoral dissertation, Seoul National University, Seoul, Korea.
- Song, H. R., & Kim, O. N. (2020). The effect of early childhood teachers' ability to empathize with culture on multicultural education attitudes through multicultural sensitivity as a medium. *Proceedings of the Korean Association for Immigration Policy*, 3(2), 55–78.
- Wang, Y. W., Davidson, M. M., Yakushko, O. F., Savoy, H. B., Tan, J. A., & Bleier, J. K. (2003). The Scale of Ethnocultural Empathy: Development, validation, and reliability. *Journal of Counseling Psychology*, 50(2), 221–234.

- Warren, C. A. (2015). Scale of Teacher Empathy for African American males (S-TEAAM): Measuring teacher conceptions and the application of empathy in multicultural classroom settings. *Journal of Negro Education*, 84(2), 154–174.
- Yang, S. M. (2020). A study on education for migrants from multicultural families from the perspective of Korean thought. *National Thought*, 14(1), 113–136.
- Yeo, J. Y. (2012). Validation of the Korean Version of the Empathy Quotient—Short Form. *Journal of the Korean Academia Industrial Cooperation Society*, 13(11), 5356–5363.
- Yoo, C. K., & Nam, K. B. (2018). Trends and characteristics of empathy research in the social sciences. *Cultural Contents Research*, 13(2), 75–100.

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